

2/23/2006 2:25:50 PM

[File 342] Derwent Patents Citation Indx 1978-05/200607

s pn=us 4608158

S6 1 S PN=US 4608158

map pn/ct=

SearchSave "SC324" stored
1 Select Statement, 3 Search Term(s)
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4 Select Statements, 42 Search Term(s)
SearchSave SC325

1 SearchSave(s), 42 Search Term(s)

[File 344] Chinese Patents Abs Jan 1985-2006/Jan**[File 347] JAPIO Nov 1976-2005/Sep(Updated 060103)****[File 350] Derwent WPIX 1963-2006/UD,UM &UP=200607**

Set	Items	Description
S1	18	S1:S3
S2	17	S S1 AND PY<=2002
S3	0	S S2 AND (VISCOSITY OR SURFACE()TENSION)
S4	6	S S2 AND (TANK???? OR RESERVOIR? ?)
S5	8	S S2 AND (MEASUR???? OR MONITOR???? OR DETECT????? OR SENS?????)
S6	0	S S2 AND (SURFACE(3N)AGENT)
S7	6	S S5 NOT S4

2/23/2006 2:25:50 PM

[File 342] Derwent Patents Citation Indx 1978-05/200607

s pn=us 4146474

S1 1 S PN=US 4146474

map pn/ct=

SearchSave "SC326" stored

1 Select Statement, 5 Search Term(s)

SearchSave SC326

1 SearchSave(s), 5 Search Term(s)

map pn

SearchSave "SC327" stored

5 Select Statements, 49 Search Term(s)

SearchSave SC327

1 SearchSave(s), 49 Search Term(s)

[File 344] Chinese Patents Abs Jan 1985-2006/Jan**[File 347] JAPIO Nov 1976-2005/Sep(Updated 060103)****[File 350] Derwent WPIX 1963-2006/UD,UM &UP=200607**

Set	Items	Description
S1	23	S1:S4 FROM 344, 347, 350
S2	20	S S1 AND PY<=2002
S3	0	S S2 AND (VISCOSITY OR SURFACE()TENSION)
S4	0	S S3 AND (TANK???? OR RESERVOIR? ?)
S5	8	S S2 AND (MEASUR???? OR MONITOR???? OR DETECT????? OR SENS?????)
S6	0	S S2 AND SURFACE()AGENT? ?

7/9/1 (Item 1 from file: 347) [Links](#)

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04656758 **Image available**

CONTROLLING EQUIPMENT OF DAMPENING SOLUTION

Pub. No.: 06-328658 [JP 6328658 A]

Published: November 29, 1994 (19941129)

Inventor: SUDO TORU

KURAMOTO TAKASHI

SENO YASUHIRO

MOGI MASAO

URASE HISATO

Applicant: TOPPAN PRINTING CO LTD [000319] (A Japanese Company or Corporation), JP (Japan)

Application No.: 05-167858 [JP 93167858]

Filed: July 07, 1993 (19930707)

International Class: [5] B41F-007/32; B41F-007/24; B41F-033/10

JAPIO Class: 29.4 (PRECISION INSTRUMENTS -- Business Machines)

JAPIO Keyword: R110 (INSTRUMENTATION -- Digital Display Instrumentation); R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessors)

ABSTRACT

PURPOSE: To control precisely and properly the concentration of an etching liquid in a dampening solution by providing an ion concentration **measuring** means for **measuring** the concentration of a selected ion contained in the etching liquid in the dampening solution, a dampening solution temperature **measuring** means, an ion concentration information correcting means and an etching liquid concentration adjusting means.

CONSTITUTION: The concentration of one kind of ion selected from negative ions of a nitric acid ion, a nitrous acid ion, a fluovide ions, a sulfate ion and a sulfide ion and positive ions of a sodium ion, an ammonia ion and a potassium ion, which are contained in an etching liquid in a dampening solution, e.g. the concentration of the nitric acid ion, is **measured** by an ion concentration **sensor** for the nitric acid ion and calibrated by the information on the concentration of the nitric acid ion for calibration. Next, a change in the concentration of the nitric acid ion in the dampening solution, which is based on the temperature of the dampening solution, is corrected and the concentration of the nitric acid ion thus corrected is converted into the concentration of the etching liquid. The information on the concentration of the etching liquid is compared with a threshold value set and inputted beforehand through an etching liquid concentration setting switch, and based on the result of judgement as to relative magnitude, a start/stop signal is outputted to an etching liquid supply pump.

4/9/4 (Item 4 from file: 350) Links

Derwent WPIX

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009737808 **Image available**

WPI Acc No: 1994-017659/**199403**

XRAM Acc No: C94-008240

XRPX Acc No: N94-013412

**Offset printing dampening water composition controller -
corrects measured ion concn. for temp. variation to improve control
precision**

Patent Assignee: TOPPAN PRINTING CO LTD (TOPP)

Inventor: KURAMOTO T; MOGI M; SENO Y; SUDO T; URASE H

Number of Countries: 006 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 579104	A1	19940119	EP 93110892	A	19930707	199403 B
US 5368817	A	19941129	US 9385158	A	19930702	199502
JP 6328658	A	19941129	JP 93167858	A	19930707	199507

Priority Applications (No Type Date): JP 9366803 A 19930325; JP 92180835 A 19920708; JP 92268451 A 19921007

Cited Patents: 2.Jnl.Ref; DE 3822344; EP 170160; EP 227949; EP 378497; GB 2206413; JP 62172244; JP 63001543

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 579104	A1	E 21	B41F-007/32	
Designated States (Regional): DE FR GB NL				
US 5368817	A	17	G01N-033/00	
JP 6328658	A	15	B41F-007/32	

Abstract (Basic): EP 579104 A

A controller for regulating the concn. of etching soln. in dampening water circulation in offset printing comprises an ion concn. sensor for measuring nitrate, nitrite, phosphate, fluoride, sulphate, sulphide, sodium, ammonium or potassium ions, and a water temp. sensor. The ion concn. is corrected in accordance with measured temp. and the corrected value is used to adjust etching coln. concn..

The ion concn. is pref. measured by an ion-selective electrode, and impurities are removed from the water ahead of the sensors. Cations may be removed from the water ahead of the ion sensor, and the corrected concn. value is pref. displayed.

ADVANTAGE - Controls soln. concn. with high precision to give consistently high-quality printing.

Dwg.1/12

Abstract (Equivalent): US 5368817 A

Dampening water controller for concn. of an etching soln. in dampening water used in offset printing comprising a monitoring **tank** (33) in which dampening water (30) is stored, a nitrate ion concn. sensor (8) and a dampening water temp. sensor (7). Stock etching

soln. is kept in a **reservoir** (3) and is fed to the **tank**
by a microcomputer control system (4) on the basis of signals from the
sensor.

ADVANTAGE - High precision control.

Dwg.1/12

Title Terms: OFFSET; PRINT; DAMP; WATER; COMPOSITION; CONTROL; CORRECT;
MEASURE; ION; CONCENTRATE; TEMPERATURE; VARIATION; IMPROVE; CONTROL;
PRECISION

Derwent Class: G05; J04; M14; P74; S06

International Patent Class (Main): B41F-007/32; G01N-033/00

International Patent Class (Additional): B41F-007/24; B41F-033/10

File Segment: CPI; EPI; EngPI

Manual Codes (CPI/A-N): G05-F; J04-C02; M14-A02

Manual Codes (EPI/S-X): S06-C03

4/9/6 (Item 6 from file: 350) Links

Derwent WPIX

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008331835

WPI Acc No: 1990-218836/**199029**

XRPX Acc No: N90-169830

**Offset printing press moistening system - has
electronically-controlled metering pumps injecting alcohol and acid**

Patent Assignee: ZANON A (ZANO-I)

Inventor: ZANON A

Number of Countries: 013 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 378497	A	19900718	EP 90440003	A	19900115	199029 B
FR 2641733	A	19900720				199036
EP 378497	B1	19940706	EP 90440003	A	19900115	199426
DE 69010342	E	19940811	DE 610342	A	19900115	199431
			EP 90440003	A	19900115	

Priority Applications (No Type Date): FR 89517 A 19890113

Cited Patents: DE 932491; EP 170160; EP 227949; GB 1154771; US 3557817; US 3947356

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 378497	A				
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Designated States (Regional): AT BE CH DE ES GB GR IT LI LU NL SE

EP 378497	B1 F	8	B41F-033/00
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Designated States (Regional): AT BE CH DE ES GB GR IT LI LU NL SE

DE 69010342	E		B41F-033/00	Based on patent EP 378497
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Abstract (Basic): EP 378497 A

The system has a cooled vessel in which, prior to delivery to the moistening vessels, the water receives isopropyl alcohol and an acid additive. In the return piping (14) from the moistening vessels (8) and wherethis enters the refrigerating one (1) are an electrode (15) measuring the pH, and a cell (15') measuring the water conductivity. An electronic pH-meter (16) connected to the electrode controls a metering pump (17) extracting the quantity of acid additive from a **tank** necessary to bring the Ph back to a predetermined value recorded by the meter, and which it injects into the piping downstream of the electrode and cell.

An electronic conductivity meter (19) connected to the cell similarly controls a metering pump (20) injecting alcohol from a **tank** (21) at the same position. A pump (4) at the refrigerated vessel continuously circulates the water in it and deliverse to the moistening vessels, while in the return pipe (11) is an eejector nozzle (10) drawing in the water from the vessels and delivering to the refrigerated one (1).

USE/ADVANTAGE - Accurately maintains constant quality of water.

Dwg.1/1

Abstract (Equivalent): EP 378497 B

A device allowing the control and regulation of the damping solution in an off-set printing system, of the type comprising a refrigerated **tank** (1) in which the composition of the damping solution is adjusted prior to its being sent to the damping troughs (8) by the addition of isopropyl alcohol and an acid additive, of the type comprising: (a) an electrode (15) for measuring the pH and a cell (15') for measuring the conductivity of the damping solution; (b) an electronic pH meter (16) which is connected to the pH measuring electrode (15) and linked to a metering pump (17) intended to draw into a container (18) the quantity of acid additive sufficient to bring the pH to a predetermined value stored by the said pH meter (16); (c) an electronic conductivity meter (19) which is connected to the cell (15') and linked to a metering pump (20) intended to draw into a container (21) the quantity of isopropyl alcohol sufficient for bringing the content thereof to a predetermined value stored by the said conductivity meter (19); (d) a pump (4) which is disposed in proximity to the **tank** (1) and assures the permanent circulation of the damping solution in the **tank** (1) as well as its flow towards the damping troughs (8); (e) a nozzle (10) which is disposed on the outlet conduit (11) of the said damping troughs between the **tank** (1) and the damping troughs (8) and has the function of drawing up the damping solution leaving the said troughs (8) in order to reintroduce it into the **tank** (1), characterised in that (f) the pH measuring electrode (15) and the cell (15') for measuring the conductivity of the damping solution are disposed in a conduit (14) taking the damping solution to the said **tank** (1), at the inlet of the said conduit (14) into the **tank**; and (g) the metering pumps (18,20) are designed in order to inject respectively the acid additive and the isopropyl alcohol into the said conduit (14) taking the damping solution to the **tank** (1), downstream of the said electrode (15) and the said cell (15').

(Dwg.1/1

Title Terms: OFFSET; PRINT; PRESS; MOIST; SYSTEM; ELECTRONIC; CONTROL; METER; PUMP; INJECTION; ALCOHOL; ACID

Derwent Class: P74

International Patent Class (Main): B41F-033/00

International Patent Class (Additional): B41F-007/32

File Segment: EngPI

5/9/2 (Item 2 from file: 347) [Links](#)

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02384643 **Image available**

COMPOSITION MANAGEMENT DEVICE OF MOISTENING WATER FOR PRINTING

Pub. No.: 63-001543 [JP 63001543 A]

Published: January 06, 1988 (19880106)

Inventor: KOBAYASHI MICHIAKI

SUZUKI DAIJI

YAMADA KENJI

Applicant: DAINIPPON PRINTING CO LTD [000289] (A Japanese Company or Corporation), JP (Japan)

Application No.: 61-144746 [JP 86144746]

Filed: June 23, 1986 (19860623)

International Class: [4] B41F-007/32; G01N-001/10

JAPIO Class: 29.4 (PRECISION INSTRUMENTS -- Business Machines); 46.2 (INSTRUMENTATION -- Testing)

JAPIO Keyword: R110 (INSTRUMENTATION -- Digital Display Instrumentation); R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessors)

Journal: Section: M, Section No. 705, Vol. 12, No. 195, Pg. 48, June 07, 1988 (19880607)

ABSTRACT

PURPOSE: To perform the composition management highly accurately by means of a small and easy-to-handle device, by providing an alcohol concentration **detector**, a temperature **detector** and a hydrogen ion concentration **detector** in order to **detect** the composition of moistening water being fed to a printing machine and to control the addition of specific solute into the moistening water on the basis of the **detection** result.

CONSTITUTION: In case of an alcohol dampening system for an offset printing machine, a portion of moistening water being fed from a pump 2 toward a vessel 3 is taken through a bypass pipe 9 at a **detecting** section 8 of the device, then **measured** and returned through a pipe 10 to a moistening water tank 1. On the basis of signals fed from various **sensors** arranged at a **detection** section 8, a control section 11 calculates the temperature of the moistening water, the alcohol concentration and the pH level then controls such that the composition and the temperature of the moistening water converge to the levels preset by a digital switch based upon the **detection** result. Since all **sensors** necessary for control are collected in the **detecting** section 8, the structure is simplified and the handling is facilitated resulting in an almost completely automated control.

5/9/5 (Item 2 from file: 350) Links

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007189537

WPI Acc No: 1987-186546/198727

XRAM Acc No: C87-077665

XRPX Acc No: N87-139439

**Measuring conc. of a soln. - by measurement of the
concn. of a gas, contained in the soln. as a solute**

Patent Assignee: DAINIPPON INSATSU KK (NIPQ)

Inventor: KOBAYASHI M; SUZUKI D; YAMADA K

Number of Countries: 009 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 227949	A	19870708	EP 86116344	A	19861125	198727	B
US 4745953	A	19880524	US 86934790	A	19861125	198823	
JP 62125413	A	19870606				199030	
JP 63001543	A	19880106				199030	
JP 63005252	A	19880111				199030	
EP 227949	B1	19931013	EP 86116344	A	19861125	199341	
DE 3689168	G	19931118	DE 3689168	A	19861125	199347	
			EP 86116344	A	19861125		

Priority Applications (No Type Date): JP 86148144 A 19860626; JP 85263787 A 19851126; JP 86144746 A 19860623

Cited Patents: A3...8916; DE 2745741; DE 3327252; No-SR.Pub; US 3358704; US 4315890; US 4474476

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 227949	A	E	50		
Designated States (Regional): CH DE FR GB IT LI SE					
US 4745953	A		24		
EP 227949	B1	E	28	G01N-033/18	
Designated States (Regional): CH DE FR GB IT LI SE					
DE 3689168	G			G01N-033/18	Based on patent EP 227949

Abstract (Basic): EP 227949 A

Soln. is contained in a space (18) defined by a boundary surfaces, with an arrangement (16) for **detecting** the concn. of a gas contained in the soln. as a solute. The concn. of the gas is a **measure** of the concn. of the soln.

USE/ADVANTAGE - Partic. for **measuring** the concn. of alcohol in dampening water used in printing. Allows control of concn. of alcohol in the dampening water, and its pH, in a simple operation, using compact appts. and yet which **measures** the concn. and pH with high accuracy. The measurement can be effected continuously without being affected by air bubbles.

20/26

Abstract (Equivalent): EP 227949 B

A device for **measuring** the concentration of aqueous solution of alcohol, characterised by comprising a **measuring** unit (8) including a cavity having an inlet and an outlet through which cavity dampening water flows from said inlet to said outlet, maintaining the dampening water at a predetermined level; a closed space (18) provided between said inlet and outlet, the dampening water flowing through said closed space; and a gas **sensor** (16) provided in the closed space to **detect** the concentration of a gaseous component involved in the dampening water; and operation means for outputting a signal representing the concentration of the solution in response to the output of said gas **sensor** (16).

Dwg.1/26

Abstract (Equivalent): US 4745953 A

Concn. of an aq. alcohol soln. is **measured** by **detecting** the conc. of alcohol gas in a space partially defined by the surface of the soln.

The air above the surface is pref. kept standing. The space may be scavenged regularly and **detection** of gas carried out between scavenges.

ADVANTAGE - Increased accuracy. (24pp

Title Terms: **MEASURE**; CONCENTRATE; SOLUTION; **MEASURE**;
CONCENTRATE; GAS; CONTAIN; SOLUTION; SOLUTE

Derwent Class: E17; J04; P74; S03

International Patent Class (Main): G01N-033/18

International Patent Class (Additional): B41F-033/00; B65B-003/04;

G01N-027/06

File Segment: CPI; EPI; EngPI

Manual Codes (CPI/A-N): E10-E04L; E11-Q03; J04-C04

Manual Codes (EPI/S-X): S03-E14B

5/9/7 (Item 4 from file: 350) Links

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004117468

WPI Acc No: 1984-263009/198442

XRAM Acc No: C84-111336

XRPX Acc No: N84-196657

**Offset printing chemical blender system - comprises
probe-controlled mixing tank for liq. diluent and printing chemical**

Patent Assignee: THOMSEN J (THOM-I)

Inventor: THOMSEN J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4474476	A	19841002	US 82405562	A	19820805	198442 B

Priority Applications (No Type Date): US 82405562 A 19820805

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4474476	A		5		

Abstract (Basic): US 4474476 A

The blender system comprises a mixing tank (12) to which diluent liq. is supplied via a pipe (20) and a tank liq. level controller (18), the contents of the tank (12) being circulated (58).

At least one container (36,44) of printing chemical is connected to a pump (30,40) for feeding chemical to the tank (12) as its liq. level drops and more diluent liq. flows in. A controller (52) for the pump (36,44) is responsive to a probe (56) in the tank, the probe (56) **sensing** pH or electrical conductivity and operating to keep chemicals concn. in the tank at predetermined value.

ADVANTAGE - The system is unaffected by temp. or concn. of the printing chemicals.

1/2

Title Terms: OFFSET; PRINT; CHEMICAL; BLEND; SYSTEM; COMPRISE; PROBE; CONTROL; MIX; TANK; LIQUID; DILUTE; PRINT; CHEMICAL

Derwent Class: G05; S06; T06

International Patent Class (Additional): B01F-015/04; G05D-011/02

File Segment: CPI; EPI

Manual Codes (CPI/A-N): G02-A04A; G02-A04B

Manual Codes (EPI/S-X): S06-C03; T06-B06; T06-B08A